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PATENT 2-9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants: Chin-Hui Lee, *et al.*

Serial No.: 09/325,143

Filed: June 3, 1999

Title: KEY SEGMENT SPOTTING IN VOICE MESSAGES

Grp./A.U.: 2645

Examiner: Gerald Gauthier

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APPELLANTS' BRIEF UNDER 37 C.F.R. §1.192

This is an appeal from a Final Rejection mailed on August 14, 2002, of Claims 1-8. The Appellants submit this Brief in triplicate as required by 37 C.F.R. §1.192(a), with the statutory fee of \$320.00 as set forth in 37 C.F.R. §1.17(c), and hereby authorize the Commissioner to charge any additional fees connected with this communication or credit any overpayment to the Deposit Account No. 08-2395.

This brief contains these items under the following headings, and in the order set forth below,
in accordance with 37 C.F.R. §1.192(c):

- I. REAL PARTY IN INTEREST**
- II. RELATED APPEALS AND INTERFERENCES**
- III. STATUS OF CLAIMS**
- IV. STATUS OF AMENDMENTS**
- V. SUMMARY OF THE INVENTION**
- VI. ISSUES**
- VII. GROUPING OF CLAIMS**
- VIII. SUMMARY OF REFERENCES RELIED ON BY THE EXAMINER**
- IX. APPELLANTS' ARGUMENTS**
- X. APPENDIX A - CLAIMS**

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is the Assignee, Lucent Technologies, Inc.

II. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-8 are pending in this application.

IV. STATUS OF THE AMENDMENTS

The present Application was filed on June 3, 1999, containing Claims 1-8. The Appellants filed a first Amendment on June 5, 2002, amending Claims 1 and 6 in response to an Examiner's Action mailed on March 6, 2002, that rejected Claims 1-8. No claims were canceled or added. In a Final Office Action mailed on August 14, 2002, the Examiner rejected Claims 1-8 citing new references. In response, the Appellants filed a second Amendment under 37 C.F.R. § 1.116 on December 11, 2002, in which Claims 1 and 6 were amended to place them in better form for consideration on appeal. The Appellants submitted the second Amendment solely as clarification of the existing claim language and did not add new subject matter. The Examiner mailed an Advisory Action on December 31, 2002, indicating that the second Amendment would not be entered because it raised new issues that would require further consideration and/or search. The Examiner did not indicate what new issues were raised by the second Amendment. The Examiner also indicated in the Advisory Action that the second Amendment would be entered for purposes of an Appeal. In a telephone conversation on January 9, 2003, the Examiner, however, asserted that the second Amendment would not be entered for an Appeal and that a corrected Advisory Action would be mailed. Accordingly, the claims set forth in Appendix A below do not include the language submitted in the second Amendment.

V. SUMMARY OF THE INVENTION

The present invention is directed, in general, to voice messaging systems and, more specifically, to spotting key segments in voice messages. (Page 1, lines 9-11). The present invention provides a method and system of identifying and spotting segments containing key information in voice messages. Once a key segment has been spotted, the present invention can provide a user with the pertinent information contained in the key segment. For example, the present invention may be used to spot a name segment in a voice message from a caller by detecting and verifying the presence of a segment such as "My name is ... " or "This is ... ", and then provide the name of the caller to the user. The user, therefore, may retrieve a message to hear just a desired section or sections of a message without having to listen to the rest of the message. The present invention is advantageously useful in sorting through a large number of voice mail messages allowing a user to search for particular messages, messages from particular callers or for certain segments within a message. (Page 1, line 21 to Page 2, line 18).

VI. ISSUES

A. First Issue Presented for Review:

Whether the Examiner properly rejected Claims 1-4 and 6-7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,797,124 to Walsh, *et al.* ("Walsh").

B. Second Issue Presented for Review:

Whether the Examiner properly rejected Claims 5 and 8 under 35 U.S.C. §103(a) as being unpatentable over Walsh in view of U.S. Patent No. 6,233,553 to Contolini, *et al.* ("Contolini").

VII. GROUPING OF THE CLAIMS

Claims 1-8 do not stand or fall together. Independent Claim 1 and its dependent Claims 2-5 form a first group of claims that stand or fall together. Independent Claim 6 and its dependent Claims 7-8 form a second group of claims that stand or fall together.

VIII. SUMMARY OF REFERENCES RELIED ON BY THE EXAMINER

A. Walsh

Walsh is directed to voice controlled message retrieval using an associated header and return address for each message stored in a voice mail system. To retrieve a message, a subscriber may simply speak the associated header. The subscriber's speech is then compared with the speech recognition templates stored in the system. If a matching template is found, the system plays the message associated with the header from which the template was generated. (Abstract).

In Walsh, a caller who is about to input data for subsequent retrieval by another person is asked to identify himself or herself. The caller then provides his or her name, a nickname, a code name, etc. In addition, the caller is asked to leave a return address indicating where the caller can be reached. The system then records the spoken identity and the associated return address in a database. (Column 1, lines 48-55).

The called party, then queries the system to determine if messages are waiting and receives from the system a spoken list of identities. These identities are the identities provided by the caller which were previously stored in the database. The called party then speaks (repeats) one of the identities from the list and the system retrieves the data associated with that spoken identity. (Column 1, lines 56-62).

For example, when retrieving his or her messages, the called party will hear the message: "You have five messages. Your messages are from, Billy, Tom, Jim, David, and Mom S. Which message do you desire to hear?" The called party will respond with one of the names from the list, such as, "Mom S." The message in the database associated with "Mom S" will be delivered to the called party. (Column 1, line 63 to Column 2, line 3).

B. Contolini

Contolini is directed to automatically determining phonetic transcriptions associated with spelled words. (Abstract). Contolini combines speech recognition and speech synthesis technologies to the mutual advantage of both disciplines in generating pronunciation dictionaries. (Column 1, lines 22-26). Contolini teaches automatically generating phonetic transcriptions, with little or no human involvement, depending on the desired accuracy of the dictionary. The invention provides a tool by which the user can specify a confidence level and the system automatically stores in the dictionary all generated pronunciations that fulfill the desired confidence level. The system can generate multiple pronunciations at different confidence levels, as needed, based on the requirements of the speech system being developed. (Column 1, line 63 to Column 2, line 7).

IX. THE APPELLANTS' ARGUMENTS

The inventions set forth in independent Claims 1 and 6 and dependent Claims 2, 3, 4 and 7 are not anticipated by the reference on which the Examiner relies. Additionally, dependent Claims 5 and 8 are not unpatentable over the references cited by the Examiner.

A. Rejection of Claims 1-4 and 6-7 under 35 U.S.C. §102

The Examiner has rejected Claims 1-4 and 6-7 under 35 U.S.C. §102(b) as being anticipated by Walsh. In the Examiner's Action, the Examiner asserts that Walsh teaches each and every element of independent Claims 1 and 6. (Final Office Action, pages 3-4). The Applicants respectfully disagree.

Walsh does not teach a method of spotting a key segment in a voice message including comparing the characteristics of a stored key segment against the voice message to detect the key segment in the voice message or tagging the voice message with the location of the detected key segment. (Claims 1 and 6). Instead, Walsh teaches a system where a subscriber retrieves a voice message by speaking a caller's name that is matched to a name, or associated header, left by the caller. (Abstract). In Walsh, the system prompts the caller to input a name tag, or header when the caller connects with the subscriber's voice mail system. The system then generates a speech recognition template from the header. The caller is then prompted to leave a voice message for the subscriber which is saved in the voice mail system along with its associated header and return address. (Column 2, line 62 to Column 3, line 22).

The template generated from the inputted header, however, is not compared to the voice message. On the contrary, the template is compared to a spoken header from the subscriber to select

which voice message to play. (Column 3, lines 51-59). In fact, no comparison is performed against the voice message at all.

The Examiner asserts that inputting a name as described in Column 2, line 66 to Column 3, line 3 of Walsh reads on “identifying a key segment” and that comparing the input to voice templates as described in Column 3, line 32 of Walsh reads on comparing “the characteristics of stored key segment against the voice message” as recited in Claims 1 and 6. (Examiner’s Action, page 3). The inputted name, however, is not compared to the voice templates. Instead, the inputted name, which is from a caller, is used to generate a voice template. (Column 2, line 66 to Column 3, line 5). Input from a subscriber, not the caller, is then compared to the voice template. (Column 3, lines 29-34).

Furthermore, the voice template is not the voice message but, instead is generated from a name tag or header that is received from a caller after being prompted by the system. The voice template may simply enable the subscriber to select a voice message that is associated with the header and is received after further prompting by the system. (Column 2, line 66 to Column 3, line 59). Advantageously, the present invention does not require a header associated with a voice message but instead detects key segments in an actual voice message itself. Walsh, therefore, does not teach comparing the characteristics of stored key segment against the voice message to detect the key segment in the voice message as recited in Claims 1 and 6.

In addition, Walsh does not tag any portion of the voice message with the location of the key segment. Instead, the system prompts the caller for a header before prompting the caller to leave a message. The voice messages are then saved in the system with the associated headers and the headers are later used by the subscriber to select which voice message to play. (Column 2, line 66 to Column 3, line 59). A key segment, nevertheless, is not tagged or located within the voice

message. Walsh, therefore does not teach tagging the voice message with the location of the detected key segment as recited in Claims 1 and 6.

Since Walsh does not teach, among other things, comparing the characteristics of a stored key segment against the voice message to detect the key segment in the voice message or tagging the voice message with the location of the detected key segment, Walsh does not disclose each and every element of independent Claims 1 and 6 and, therefore, is not an anticipating reference for Claims 1 and 6 and Claims dependent thereon. Accordingly, the Appellants respectfully traverse the Examiner's rejection of Claims 1-4 and 6-7 under 35 U.S.C. §102(b) and request a reversal with respect to these Claims.

B. Rejection of Claims 5 and 8 under 35 U.S.C. §103

The Examiner has rejected Claims 5 and 8 under 35 U.S.C. §103(a) as being unpatentable over Walsh in view of Contolini. The Examiner asserts that Walsh teaches each and every element of Claims 5 and 8 except a pronunciation of the key segment and cites Contolini to disclose such pronunciation. (Examiner's Action, page 5).

As discussed above, Walsh does not teach, among other things, comparing the characteristics of a stored key segment against a voice message to detect the key segment in the voice message or tagging the voice message with the location of the detected key segment as recited in independent Claims 1 and 6. In addition to not explicitly teaching the elements of independent Claims 1 and 6, Walsh does not suggest comparing the stored characteristics of a key segment against a voice message to detect the key segment in the voice message or tagging the voice message with the location of the detected key segment. Instead, Walsh teaches comparing a subscriber's speech to a

voice template generated from a header inputted by a caller. (Column 2, line 66 to Column 3, line 11). Moreover, one skilled in the art would not be motivated to alter the teachings of Walsh to arrive at the present invention because Walsh teaches selecting voice messages through headers that are separate from voice messages. (Column 2, line 66 to Column 3, line 22).

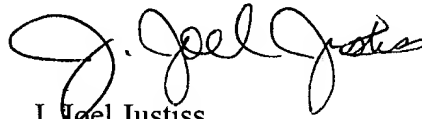
Additionally, Contolini fails to cure the deficiencies of Walsh since Contolini does not teach or suggest spotting a key segment in a voice message including comparing the characteristics of the stored key segment against the voice message to detect the key segment in the voice message or tagging the voice messaging with the location of the detected key segment. In fact, Contolini is not directed to voice messages or the retrieval of voice messages. Instead, Contolini simply teaches automatically generating phonetic transcriptions with little or no human involvement depending on the desired accuracy of a dictionary. (Column 1, lines 63-66).

Since Contolini fails to cure the deficiencies of Walsh, the combination of Walsh and Contolini fails to teach or suggest each and every element of independent Claims 1 and 6 and does not establish a *prima facie* case of obviousness of Claims 5 and 8 which include the elements of Claims 1 and 6. The inventions, therefore, associated with dependent Claims 5 and 8 are not unpatentable over Walsh in view of Contolini. Accordingly, the Appellants respectfully traverse the Examiner's rejection of Claims 5 and 8 under 35 U.S.C. §103(a) and request a reversal with respect to these Claims.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 1-8 under 35 U.S.C. §102(b) and 35 U.S.C. §103(a). Accordingly, the Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's Final Rejection of all of the Appellants' pending claims.

Respectfully submitted,

Hitt Gaines & Boisbrun, P.C.

A handwritten signature in black ink, appearing to read "J. Joel Justiss". The signature is fluid and cursive, with the first and last names being more prominent.

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X. APPENDIX A - CLAIMS

1. A method of spotting a key segment in a voice message comprising the steps of:
identifying a key segment;
storing characteristics of the key segment;
receiving a voice message;
comparing the characteristics of stored key segment against the voice message to detect the
key segment in the voice message;
tagging the voice message so as to indicate the location of the detected key segment within
the voice message;
receiving an enquiry for the key segment; and
retrieving the key segment from the voice message.
2. The method of Claim 1, wherein the step of identifying a key segment includes
registering the key segment by storing an identification and a characteristic of the key segment.
3. The method of Claim 1, wherein the step of identifying a key segment includes
predefining the key segment.
4. The method of Claim 1, wherein the enquiry for the key segment includes speech.

5. The method of Claim 2, wherein the characteristic of the key segment includes a pronunciation of the key segment.

6. A method of spotting a key segment in a voice message comprising the steps of:
receiving a voice message;
receiving an enquiry for the key segment;
either obtaining the characteristics of the key segment from predefined key segments or storing the characteristics of the key segment;
comparing the characteristics of stored key segment against the voice message to detect the key segment in the voice message;
tagging the voice message with the location of the detected key segment; and
retrieving the key segment from the voice message.

7. The method of Claim 7, comprising the step of registering the key segment by storing an identification and a characteristic of the key segment.

8. The method of Claim 7, wherein the characteristic of the key segment includes a pronunciation of the key segment.